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TENTH ANNUAL REPORT

OF THE

MASSACHUSETTS BAY TRANSPORTATION AUTHORITY

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1974

MASSACHUSETTS
BAY
TRANSPORTATION
AUTHORITY

45 High Street, Boston, Mass. 02110

TO:
His Excellency the Governor
The General Court, and
The Advisory Board to the
Massachusetts Bay Transportation Authority

In accordance with the requirements of Section 5(h) of Chapter 161A of the General Laws, the Directors of the Massachusetts Bay Transportation Authority herewith render the tenth report of the Authority covering operations for the calendar year 1974.

SUMMARY OF THE NET COST OF SERVICE JANUARY 1, 1974 - DECEMBER 31, 1974

The Authority's net assessable cost of service to the 79 cities and towns in the District was $64,219,881.14.

Total income amounted to $64,736,108.47 and total current expenses were $193,244,785.27 leaving a cost of service in excess of income of $128,508,676.80.

The difference between the cost of service in excess of income and the net assessable cost of service resulted from state reimbursement for the Authority's debt service, unreimbursed depreciation, amortization, and interest on Penn Central Loan, and additional State aid of $47,674,144.55 provided under Chapter 1140, Acts of 1973, and Chapter 825, Acts of 1974.

In addition to the net assessable cost of service, there are three other items which must be considered by the 79 cities and towns in their 1975 account settlement with the Commonwealth. These are:

Net Assessable Cost of Service	$64,219,881.14
Interest Charged by State Treasurer on Temporary Borrowings (Estimated)	5,678,300.00
Expenses of Boston Metropolitan District	16,000.00
SUBTOTAL	$69,914,181.14
Less Pupils' Reimbursement Chapter 17, Section 7B (Estimated)	1,000,000.00
NET COST TO COMMUNITIES	$68,914,181.14

The following statement illustrates the Authority's net cost of service including all elements of cost for calendar year 1974 and the apportionment of these costs by express and local service.

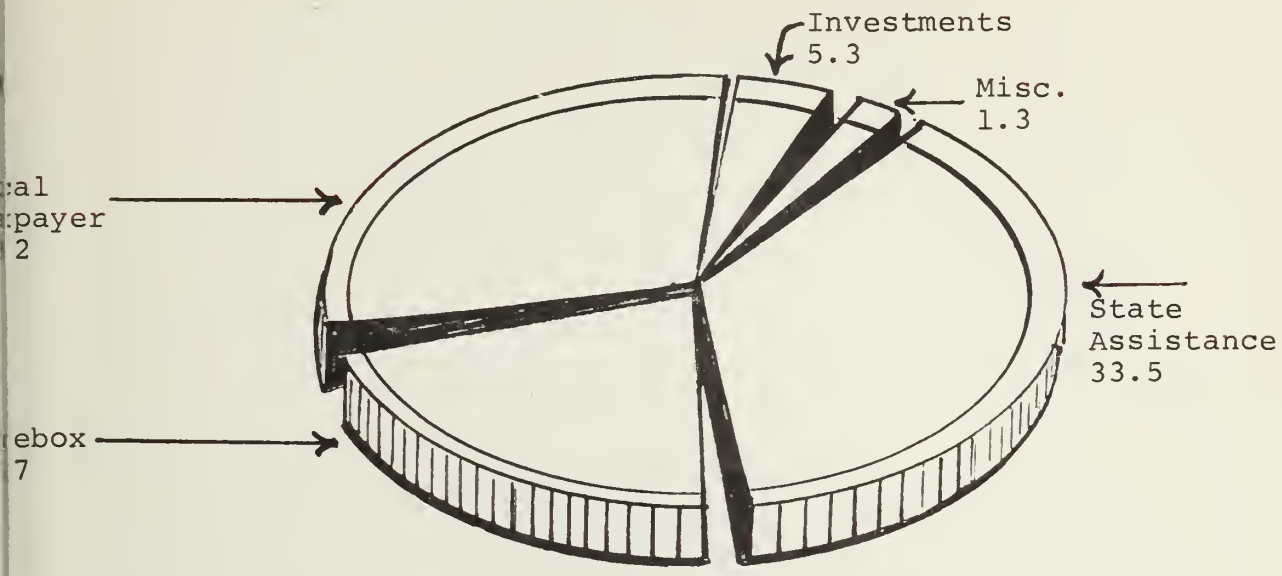
MASSACHUSETTS BAY TRANSPORTATION AUTHORITY

STATEMENT OF NET COST OF SERVICE - BY EXPRESS AND LOCAL

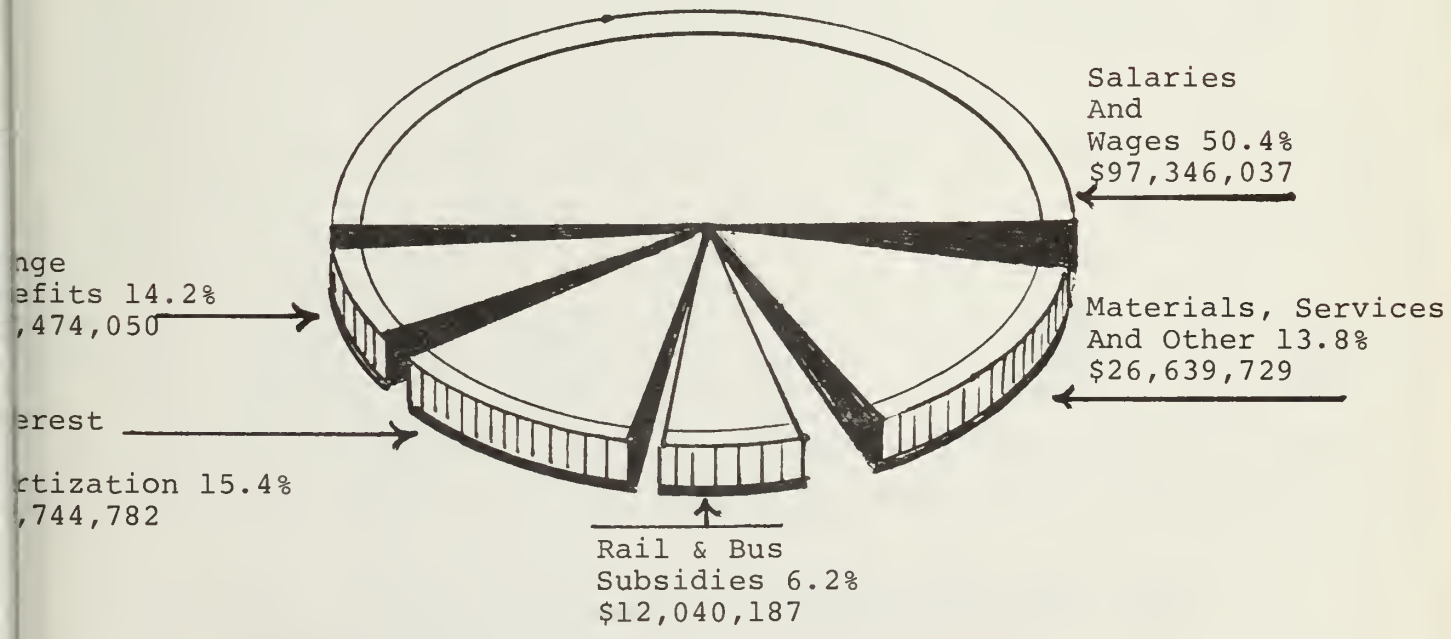
CALENDAR YEAR JANUARY 1, 1974 TO DECEMBER 31, 1974

	Express Service	Local Service	Total
ome:			
evenue from Transportation	$25,194,104.17	$26,345,417.41	$51,539,521.58
evenue from Other Rwy. Operations	1,028,069.42	312,072.59	1,340,142.01
on-Operating Income	7,754,689.16	2,912,754.41	10,667,443.57
as & Diesel Tax Reimbursement	-	366,810.00	366,810.00
eimbursement from Outside Communities	228,777.31	593,414.00	822,191.31
AL INCOME	34,205,640.06	30,530,468.41	64,736,108.47
rating Wages and Fringe Benefits:			
ages	46,381,436.99	50,964,599.94	97,346,036.93
.B.T.A. Pensions	5,919,649.68	5,919,649.67	11,839,299.35
cial Security Taxes	2,376,677.94	2,376,677.94	4,753,355.88
rkmen's Compensation	773,290.40	773,290.41	1,546,580.81
cident and Sickness Insurance	252,196.05	252,196.05	504,392.10
roup Life Insurance	364,897.40	364,897.40	729,794.80
lue Cross - Blue Shield	3,853,363.96	3,853,363.96	7,706,727.92
nemployment Insurance	57,500.00	57,500.00	115,000.00
niform and Work Clothes	101,450.49	177,449.07	278,899.56
AL OPERATING WAGES AND FRINGE BENEFITS	60,080,462.91	64,739,624.44	124,820,087.35
aterial and Other Items	7,734,324.37	5,958,941.74	13,693,266.11
njuries and Damages	531,755.18	1,130,992.11	1,662,747.29
preciation/Amortization/Interest on Penn Central Loan	614,620.92	(1,120,014.87)	(505,393.95)
aterest on Unfunded Debt	2,176,938.40	2,176,938.40	4,353,876.80
uel	7,454,320.87	3,656,254.55	11,110,575.42
axes (Other than included above)	79,218.06	599,315.67	678,533.73
ailroad Commuter Subsidy	11,728,482.97	-	11,728,482.97
apid Transit Inc. Subsidy	-	311,703.95	311,703.95
AL OPERATING EXPENSES AND TAXES	90,400,123.68	77,453,755.99	167,853,879.67
ed Charges:			
aterest on Funded Debt (M.T.A.)	2,772,223.64	1,245,491.81	4,017,715.45
aterest on Funded Debt (M.B.T.A.)	10,842,960.18	745,879.48	11,588,839.66
ayment on Funded Debt (M.T.A.)	2,175,718.57	1,171,540.71	3,347,259.28
ayment on Funded Debt (M.B.T.A.)	5,180,000.00	1,196,748.25	6,376,748.25
mbridge Subway Rental	6,630.00	-	6,630.00
iscellaneous Debits	8,380.61	3,765.20	12,145.81
ank Service Charges (M.B.T.A.)	38,241.98	3,325.17	41,567.15
AL FIXED CHARGES	21,024,154.98	4,366,750.62	25,390,905.60
AL CURRENT EXPENSES	111,424,278.66	81,820,506.61	193,244,785.27
OF SERVICE IN EXCESS OF INCOME	77,218,638.60	51,290,038.20	128,508,676.80
:			
ate Fin. Contract Assist.-M.T.A.	3,000,000.00	-	3,000,000.00
ate Fin. Contract Assist.-M.B.T.A.	12,893,803.14	1,226,241.92	14,120,045.06
ate Fin. Contract Assistance-hap. 1140, Acts of 1973-M.B.T.A.	1,168,166.17	1,277,595.14	2,445,761.31
ate Fin. Contract Assistance-hap. 825, Acts of 1974-M.B.T.A.	21,721,405.90	23,506,977.34	45,228,383.24
AL CONTRACT ASSISTANCE	38,783,375.21	26,010,814.40	64,794,189.61
COST OF SERVICE	38,435,263.39	25,279,223.80	63,714,487.19
- UNREIMBURSED DEFICIT	614,620.92	(1,120,014.87)	(505,393.95)
ASSESSABLE COST OF SERVICE	$37,820,642.47	$26,399,238.67	$64,219,881.14

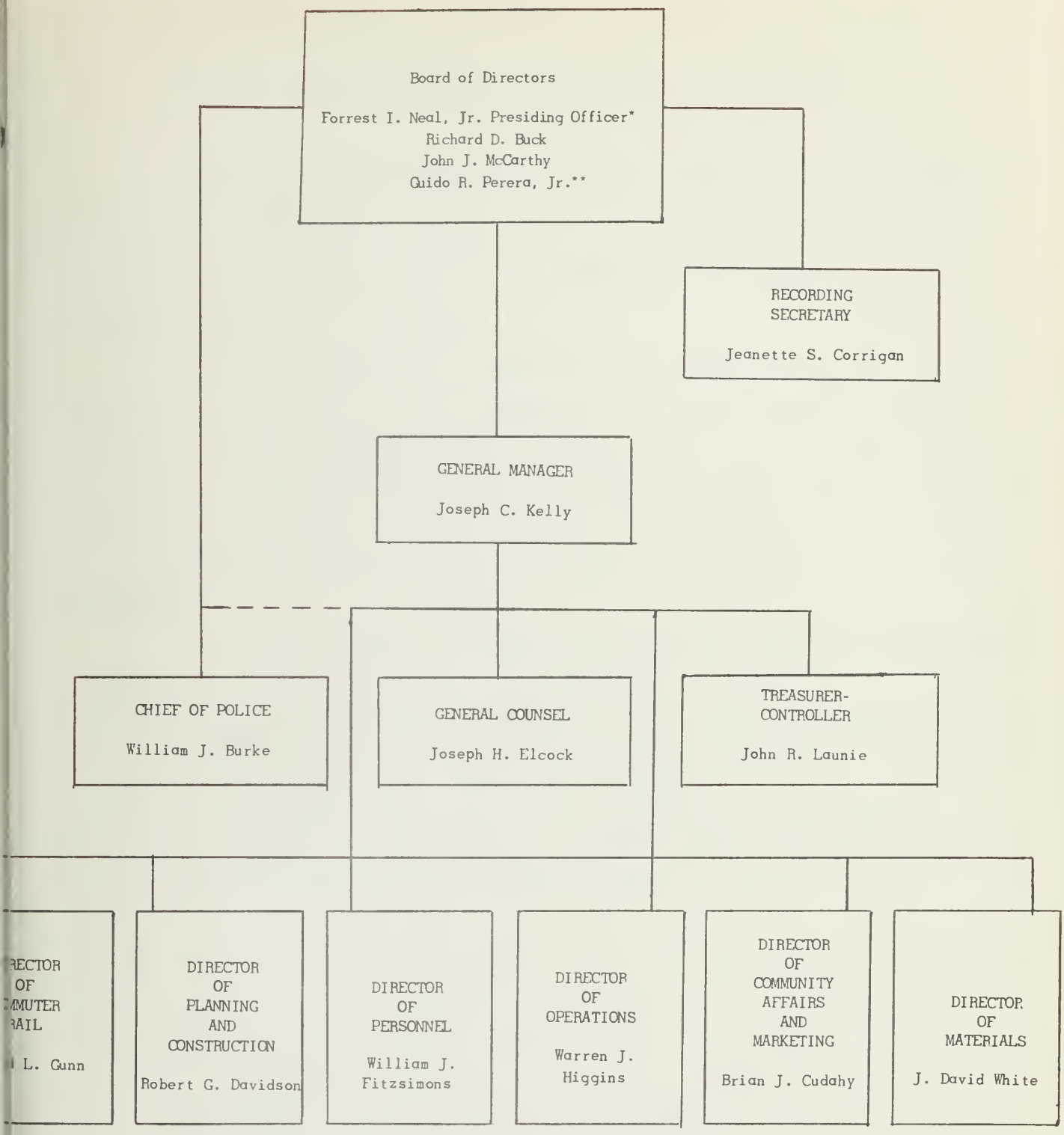
SOURCE OF OPERATING FUND DOLLAR



YEAR ENDING DECEMBER 31, 1974



CURRENT EXPENSES $193,244,785



* John T. Doolittle, Jr., served as Chairman from December 1973 through December, 1974

** Appointed May, 1974 replacing Francis B. Gummere who served from September, 1969 through March, 1974

COMPREHENSIVE PROGRAM FOR MASS TRANSPORTATION

Under Chapter 161A of the General Laws of the Commonwealth, the MBTA's Comprehensive Program for Mass Transportation, or Master Plan as it is commonly called, is subject to the approval of the Advisory Board to the Authority.

In addition to this approval, the Master Plan must be prepared in consultation with the Metropolitan Area Planning Council, the Joint Regional Transportation Committee, and other appropriate agencies of the Federal Government and must be based on the transportation plans and programs of the Department of Public Works of the Commonwealth.

The Master Plan, originally approved by the Advisory Board in 1966, has been revised in 1968, 1969 and in 1971. While no revision was made in 1974, an update of the 1973 Transit Development Program for the years 1974 - 1983 was prepared. This ten-year program is prepared and up-dated to comply with regulations of the United States Department of Transportation.

LEGISLATION - 1974

During the 1974 session of the General Court approximately 700 pieces of legislation were filed which had some effect, either direct or tangential, on the affairs of the MBTA. While most of the legislation came under the aegis of the Committees on Transportation, bills concerning public safety, real estate, crime, labor, taxation, pensions, contracts, and environmental matters also had to be followed by our General Counsel's Office.

The following Acts of 1974 will have a direct effect on the Authority:

Chapter 528 - An Act establishing an architectural barriers board in the department of public safety and abolishing the board to facilitate the use of public buildings by the physically handicapped.

Chapter 618 - An Act directing the metropolitan district commission to convey certain parcels of land in the cities of Malden and Melrose to the MBTA and to grant permanent easements for drainage purposes and a temporary easement for construction purposes in said cities.

Chapter 620 - An Act authorizing the metropolitan district commission to lease certain land in the county of Norfolk to the MBTA.

Chapter 825 - An Act providing a local-aid transportation authorization to assist highway and transit development in cities and towns throughout the commonwealth.

Chapter 825 provides for $92.5 million in highway and transit aid and is a continuation of the landmark legislation - Chapter 1140 of the Acts of 1973 - which made available, for the first time, funds from the entire Commonwealth to assume a portion of the Authority's net cost of providing essential transportation services.

In 1974 the Authority filed the following bills with the General Court for action by the 1975 session of the General Court:

An Act relative to the reimbursement of fuel, and special fuel excises to those providing mass transportation services.

An Act relative to compliance with federal law, regulations and practice by the Massachusetts Bay Transportation Authority.

An Act authorizing the Massachusetts Bay Transportation Authority to make entry on private land for the purpose of surveys, soundings and drillings.

An Act relative to the liability of the Massachusetts Bay Transportation Authority for certain acts and negligence.

An Act relative to obtaining a surety bond by the Massachusetts Bay Transportation Authority as required under the Workman's Compensation Act.

An Act authorizing the Massachusetts Bay Transportation Authority to lease air rights over its transportation facilities.

An Act repealing Chapter six hundred and twenty-eight of the Acts of Nineteen Hundred and Sixty-Six prohibiting the Massachusetts Bay Transportation Authority from disposing of or selling its power plants.

An Act relative to the time within which the budget of the Massachusetts Bay Transportation Authority share be approved by the Advisory Board.

An Act further authorizing the Metropolitan District Commission to sell and convey certain land to the Massachusetts Bay Transportation Authority.

An Act relative to the transfer of all vehicular bridges carrying public ways over the tracks or rights-of-way of railroads within the Commonwealth.

An Act relative to brakemen on certain railroad trains.

An Act relative to the number of guards on passenger trains operated by street railway companies.

(T) STATISTICS 1974

ston Elevated Railway Company (chartered)	1894
blic Control Act (by Legislation)	1918
tropolitan Transit Authority - MTA (by Legislation)	1947
ssachusetts Bay Transportation Authority (T) (by Legislation)	1964
pulation of 79 Communities in (T) district (1970 U.S. Census)	2,763,410
mber of Bus Routes	218
mber of Streetcar Routes	5
mber of Rapid Transit Routes	3
mber of Trackless Trolley Routes	4
ses	1197
reetcars	290
pid Transit Cars	353
ackless Trolleys	52
pid Transit Stations	51
ngle Track Rapid Transit Train Mileage	77.3
ngle Track Streetcar Mileage	86.7
oposed Rapid Transit Extensions (miles)	50.3
ployees (December 31, 1974)	6582
llective Bargaining Units	28
ily Passenger Load (approx.)	475,000
nual Passenger Load (approx.)	144,287,000
s Revenue Miles	23,212,289
pid Transit Revenue Miles	10,325,344
reetcar Revenue Miles	6,313,820
ackless Trolley Revenue Miles	898,931
nual Revenue Miles Operated	40,750,384

HIGHLIGHTS OF THE YEAR

Planning and Construction

During 1974 construction continued on the Haymarket-North rapid transit extension of the Orange Line with an opening to the new Sullivan Square Station scheduled for early 1975. The rehabilitation of the Riverside Line continued and this year saw the start of a new maintenance and repair facility at Riverside and the modification of facilities at Reservoir.

In June the new Charles C. Cabot Transportation Center in South Boston was dedicated in honor of a distinguished and highly-respected former Chairman of our Board of Directors. The Center consists of a maintenance and repair facility for all Red Line rapid transit cars and a 200-bus garage.

The Urban Mass Transportation Administration of the U. S. Department of Transportation approved grants totaling $56,286,988 in 1974. The largest grants were: $23,040,424 for the construction of the Red Line southerly from Quincy Center to South Braintree; $10,000,000 for a Unified Work Program; $7,628,488 for the purchase of 25 more new streetcars (Light Rail Vehicles) making a total of 175 on order; $5,496,500 for the purchase of 125 buses; and $5,414,476 in supplemental funds for the Cabot Transportation Center.

Other grants included funds for power engineering studies, the purchase of trackless trolleys, the Haymarket-North Extension, and Phase I of a rapid transit car modernization program.

This year saw more than $31 million in construction contracts awarded with the largest being: $10,617,459 for signal work at the Cabot Transportation Center; $49,811,510 for the Riverside maintenance and repair facility; $5,164,950 for the Oak Grove rapid transit station and related facilities in Malden on our Haymarket-North Extension; $1,136,981 to convert Watertown Carhouse to a trackless trolley maintenance and repair facility; and $676,976 for the renovation of the Orange Line's Forest Hills repair shop.

Engineering work was started on several fronts in 1974: improvements to our power generating plants and the power distribution system; modernization of the first 12 parking lots in a systemwide program of parking lot upgrading; new bus garages at Charlestown Yard and the Arborway; and modernization of Park Street, Washington, State, Haymarket, Auditorium, Ashmont and Essex Stations.

In mid-1974 technical studies and environmental analyses studies were begun pertaining to: a proposed South Quincy rapid transit station with related highway improvements; tunneling alternatives in the Harvard Square area; route alternatives for the extension of the Red Line northwest from Harvard Square to Arlington; extension of the Orange Line southwest from Forest Hills through Roslindale and West Roxbury to Needham; and extension of the Orange Line north of Oak Grove to Melrose, Wakefield and Reading.

MASSACHUSETTS BAY TRANSPORTATION AUTHORITY

TREASURER-CONTROLLER'S STATEMENT ON FEDERAL GRANTS -- APPROVED DOT PARTICIPATED PROJECTS

DECEMBER 31, 1974

Project Description	Project Number	Type of Grant	Estimated Cost	Maximum DOT Participation %	Maximum DOT Participation Amount	Cash Requested To Date	Cash Received To Date
Station Modernization	MA-03-0001	Capital	$9,115,920.00	66-2/3	$6,077,280.00	$5,594,919.58	$5,594,919.58
Bus Acquisition	MASS-UTG-2	Capital	4,704,981.49	66-2/3	3,136,654.32*	3,136,654.32	3,136,654.32
Haymarket Tunnel	MA-03-0003	Capital	22,543,900.00#	66-2/3	12,000,000.00	11,996,398.77	11,599,708.68
South Shore Rapid Transit	MA-03-0004	Capital	57,306,895.00	66-2/3	38,204,596.00	31,927,614.70	31,927,614.70
Haymarket-North	MA-03-0005	Capital	97,232,616.00	67	63,988,410.00	37,240,112.98	37,165,385.45
Cabot Maintenance Center	MA-03-0007	Capital	35,460,595.00	69	24,544,476.00	14,989,315.71	14,989,315.71
Systemwide Modernization	MA-03-0010	Capital	4,500,000.00	66-2/3	3,000,000.00	1,332,162.68	1,332,162.68
310 Diesel Buses	MA-03-0011	Capital	12,150,375.00	66-2/3	8,100,250.00	7,752,565.75	7,752,565.75
Station Modernization - Phase II	MA-03-0013	Capital	14,347,630.00	66-2/3	9,565,086.00	-	-
Green Line System Improvements	MA-03-0015	Capital	38,120,000.00	66-2/3	25,413,333.00	4,619,057.98	4,619,057.98
Plant Improvements - Phase I	MA-03-0017	Capital	2,359,720.00	66-2/3	1,573,146.00	56,160.75	56,160.75
125 Diesel Buses	MA-03-0018	Capital	6,870,625.00	80	5,496,500.00	-	-
Power Engineering	MA-03-0019	Capital	2,644,795.00	80	2,115,836.00	-	-
Non-Revenue Vehicles	MA-03-0021	Capital	853,410.00	66-2/3	568,940.00	385,406.94	383,699.38
Green Line Vehicles	MA-03-0022	Capital	58,735,610.00	69	40,428,488.00	1,644,844.74	1,535,537.70
80 Rapid Transit Cars	MA-03-0024	Capital	27,615,900.00	66-2/3	18,410,600.00	4,146.50	4,146.50
Safety Improvements	MA-03-0025	Capital	15,902,460.00	66-2/3	10,601,640.00	1,685,529.39	1,685,529.39
Plant Improvements - Phase II	MA-03-0026	Capital	11,899,640.00	66-2/3	7,933,092.00	482,300.00	482,300.00
50 Trackless Trolleys - Phase II	MA-03-0028	Capital	4,088,950.00	71	2,914,860.00	-	-
Restoration - Orange Line	MA-03-0029	Capital	5,571,090.00	80	4,456,872.00	740,392.56	392,881.11
South Shore Rapid Transit-Braintree	MA-23-9001	Capital	28,800,530.00	80	23,040,424.00	-	-
Total Capital Grants			$460,825,642.49		$311,570,483.32	$123,587,583.35	$122,657,639.68
Southwest Corridor Study	MA-09-0001	Tech. Study	746,726.00	66-2/3	497,817.00	334,522.14	327,670.08
Central Area System Study	MA-09-0004	Tech. Study	783,101.00	66-2/3	522,067.41*	522,067.41	522,067.41
Boston Transp. Planning Review	MA-09-0010	Tech. Study	2,540,250.00	66-2/3	1,693,500.00	1,053,923.00	1,053,923.00
Transit Development Program	MA-09-0016	Tech. Study	1,500,000.00	80	1,200,000.00	250,122.00	250,122.00
Unified Work Program	MA-29-9001	Tech. Study	12,500,000.00	80	10,000,000.00	-	-
			18,070,077.00		13,913,384.41	2,160,634.55	2,153,782.49
So. Shore Rapid Transit	MA-03-0004	Relocation	617,000.00	100	617,000.00	369,317.24	346,502.21
Light Rail Vehicle	MA-06-0015	Demonstration	155,378.77	82	127,410.59*	127,410.59	127,410.59
Haymarket-Soil Instrumentation	MA-06-0008	Demonstration	458,356.58	66-2/3	305,571.05*	305,571.05	305,571.05
Service Development	MASS-MTD-7	Demonstration	43,430.00	81	35,178.50*	35,178.50	35,178.50

Project Description	Project Number	Type of Grant	Estimated Cost	Maximum DOT Participation %	Maximum DOT Participation Amount	Cash Requested To Date	Cash Received To Date
Validation Study	MA-06-0011	Demonstration	$440,434.00	87	$381,716.00	$357,291.97	$347,926.20
Prepaid Transit Pass Program	MA-06-0059	Demonstration	80,000.00	100	80,000.00	-	-
Training Grant - 1968	MASS-MTTR-2	Managerial	26,634.08	75	19,975.56*	19,975.56	19,975.56
Training Grant - 1969	MASS-MTTR-3	Managerial	20,404.56	75	15,303.42*	15,303.42	15,303.42
Training Grant - 1970	MASS-MTTR-4	Managerial	13,650.07	75	10,237.56*	10,237.56	10,237.56
Training Grants - 1971	MASS-MTTR-5-6-7-8-9	Managerial	30,317.60	75	22,738.19*	22,738.19	22,738.19
Training Grants - 1972	MA-10-0010-11-12-13	Managerial	27,502.97	75	20,624.00*	20,624.00	20,624.00
Training Grants - 1973	MA-10-0015-16-17-18-19-20	Managerial	35,329.31	75	26,494.00*	26,494.00	26,494.00
Training Grants - 1974	MA-10-0021-22-23	Managerial	17,355.41	75	13,006.00	6,213.00	6,213.00
Training Grants - 1975	MA-10-0025	Managerial	4,838.00	75	3,628.00	-	-
Total			$480,866,350.84		$327,162,750.60	$127,064,572.98	$126,095,596.45

Includes $4,543,900.00 Maximum B.R.A. Participation
* Completed

Materials

Shortages of critical materials, stunning price increases and long lead times plagued this department in 1974 as these same factors, over which the Authority has no effective control, also affected the nation's economy.

For example, oil and oil products prices are graphically illustrated below, a cost factor with a direct bearing on the net cost of service.

Type of Fuel	Annual Usage	Price as of 12/31/72	Price as of 12/31/73	Price as of 12/31/74
Gasoline	312,000 gls.	$ .124 gl.	$ .314 gl.	$ .325 gl.
Diesel Fuel	7,030,000 gls.	.1185 gl.	.2504 gl.	.3502 gl.
No. 2 Fuel Oil	660,000 gls.	.1389 gl.	.2139 gl.	.2834 gl.
No. 4 Fuel Oil	13,700 bbls.	4.98 bbl.	8.51 bbl.	13.82 bbl.
No. 6 Fuel Oil	620,000 bbls.	4.69 bbl.	10.85 bbl.	13.52 bbl.

With delivery lead times increasing one must plan ahead. In 1974 Materials processed bids and awarded contracts for the purchase of capital items that the Authority won't see for a year or two such as 125 buses, 50 trackless trolleys, DC cable for Green Line improvements, bus and train shelters, and a vacuum cleaning system for our subways.

Treasurer-Controller

The first public sale of General Transportation System Bonds was held in May of this year. Prior bond issues, in the amount of $215 million, had all been negotiated with underwriting firms.

The public sale of bonds in an amount of $75 million was successful and the bonds, dated June 1, 1974 are payable over a period of 40 years at an average rate of 6.309%. Proceeds from the sale will be used to provide local share funds for federally aided programs such as rapid transit extensions, purchase of passenger carrying equipment and the modernization of existing mass transit facilities.

Police

Training keynoted 1974 for our police department. A first group of 16 officers were the recipients of specialized training in matters such as bomb disposal, ambulance driving, crime scene search, municipal investigation, and the investigation of rape cases.

This advanced training has greatly increased the department's ability to investigate fully, including powdering, fingerprinting and photographing, any crime scene thus diminishing our reliance on local police departments, state and M.D.C. police and the F.B.I. The department, however, continues a close cooperative liaison with these organizations.

Safety and Training

The efforts of this department showed success again as the Authority again evidenced an historic interest in the safety of our operations both as it pertains to our riders and to our employees.

A significant reduction in Surface Lines traffic and passenger accidents was realized in 1974:

Comparison of Traffic and Passenger Accidents for Year 1974 with the Previous Three Year Average

	3 Year Average No. of Acc.	1974 Actual No. of Acc.	Reduction	Percent Improvement
Traffic	2,667	2,254	413	15.5
Passenger	768	610	158	20.6
Total	3,435	2,864	571	16.6

This result was made possible by incentive programs aimed at preventing accidents while in revenue service and a new program which is attempting to reduce absences from work due to sickness or industrial accidents. A new "Safe Driver" pin was designed and awards made to those operators with a record of more than two years without an accident.

Training and inspection also play a vital role in the achievements of this section including the initial instruction of more than 200 employees as operators, motormen, guards, and starters; re-instruction of rapid transit crewmen; revision of safety rule books; and instruction of maintenance personnel.

Commuter Railroads

The Authority continues to consider the preservation and improvement of commuter rail operations necessary for balanced mass transportation in the area and the Commonwealth. In 1974, to this end, a Commuter Rail Directorate was created with control over all of the Authority's subsidized transportation services.

In 1973 the MBTA acquired Penn Central commuter rights-of-way and the Boston & Maine's Reading Branch to Wilmington Junction. In 1974 we continued negotiations with the Boston & Maine to acquire its remaining commuter rights-of-way and with both railroads for the acquisition of commuter cars and locomotives.

The MBTA received a grant from the Urban Mass Transportation Administration for a technical study of a Commuter Railroad Improvement Program covering the modernization of rolling stock, maintenance facilities, the upgrading of tracks, signals, communications systems, stations, and parking facilities, and the acquisition of rolling stock and facilities.

As the year ended a capital grant application was ready for submission to the Federal Government calling for a pilot program for acquiring and refurbishing some Penn Central rolling stock, upgrading of the 18-mile Franklin Branch, and the installation of two-way radios in Boston & Maine Budd cars as Phase I of the Commuter Railroad Improvement Program.

Personnel

In addition to the day-to-day duties of Personnel - processing new employees, giving annual physical examinations to operating people, overseeing an industrial program on alcoholism, continuing to supervise employee training programs on the supervisory/management level, working with the Federal Government on a uniform method of selecting bus operators, and handling grievance proceedings for the Authority - 1974 saw two significant actions in the labor relations field.

As the result of an arbitration award in February, the first contract between the Authority and the Office and Professional Employees International Union, Local No. 453 came into being. Local No. 453 is the twenty-eighth bargaining unit in the Authority.

In June, the pension agreement between the Authority and Local Division 589 expired. In July, the case was moved to arbitration and, at year's end, no decision had been rendered by the arbitration board.

Community Affairs and Marketing

In 1974 the Authority continued to pursue an aggressive marketing program:

...a new Pre-paid Pass Program began whereby employers could provide their employees with a pass usable throughout the system at any time and paid for by the painless method of payroll deduction. At year's end, more than 20 employers had joined the program and some 7,000 people had a Pre-paid Pass. The Federal Government has provided funds for an evaluative study of this innovative program...

...the popular Dime-time Program was expanded...

...a program of off-peak fare reductions was put into effect on the Boston & Maine...

...a new system route map was designed and produced...

...a new local bus schedule format was developed...

...a rapid transit map in Braille was produced...

...a Courtesy Employee Contest with public participation was launched...

...a new quarterly passenger-oriented newsletter was introduced...

Operations

Containing not only the Transportation Department, but also all segments of the Authority's maintenance functions and its power generation and transmission facilities, this is the largest of our directorates. Its responsibilities are legion and involve the daily operation of the current system and the evaluation of future system components. A few of the entries on the Operations' logs will serve to demonstrate the magnitude of the job it does.....

...overhauled all air circuit breakers on South Shore...

...assisted contractor reviewing plans and engineering for interim Haymarket-North signal system...

...continued accelerated maintenance and overhaul program on streetcars...

...installed new bus shelters in MBTA communities...

...made various repairs due to vandalism amounting to an expenditure of $205,122...

...made field inspections to evaluate contractors' adherence to specifications...

...maintained service on the Riverside Line during a heavy reconstruction program...

...established a new Service Review Committee to control and process requests for changes in transportation services...

...on one section of Commonwealth Avenue renewed 6,400 feet of rail, installed 1,600 ties, poured 80 yards of concrete, 1,000 tons of ballast, and 22 tons of asphalt...

...prepared for operation and operated the U.S. Department of Transportation State-of-the-Art Car (SOAC) in regular service on the Red Line...

The MBTA is, of course, a transportation Authority. It is, thanks to the transportation and maintenance sections of Operations, a good transportation Authority striving every year to become better.

The balance sheet and statement of long-term debt of the Massachusetts Bay Transportation Authority as of December 31, 1974, and the related statements of revenue and cost of service, unreimbursed cost of service, and source and disposition of funds for the fiscal year ended December 31, 1974, together with notes relating to these financial statements are appended to this report.

Respectfully submitted,

Board of Directors

Massachusetts Bay Transportation Authority

Forrest I. Neal, Jr. Presiding Officer

Richard D. Buck

John J. McCarthy

Guido R. Perera, Jr.

ARTHUR ANDERSEN & CO.

BOSTON, MASSACHUSETTS

To the Board of Directors of

Massachusetts Bay Transportation Authority:

We have examined the balance sheet and statement of bonds payable of the MASSACHUSETTS BAY TRANSPORTATION AUTHORITY (a political subdivision of the Commonwealth of Massachusetts) as of December 31, 1974, and December 31, 1973, and the related statements of revenue and cost of service, unreimbursed cost of service, and changes in financial position for the years then ended. Our examination was made in accordance with generally accepted auditing standards, and accordingly included such tests of the accounting records and such other auditing procedures as we considered necessary in the circumstances.

In our opinion, the accompanying financial statements present fairly the financial position of the Massachusetts Bay Transportation Authority as of December 31, 1974, and December 31, 1973, and the results of its operations and changes in its financial position for the years then ended, in conformity with generally accepted accounting principles consistently applied during the periods.

Arthur Andersen & Co.

Boston, Massachusetts,
March 12, 1975.

MASSACHUSETTS BAY TRANSPORTATION AUTHORITY

BALANCE SHEET - DECEMBER 31, 1974 AND 1973

A S S E T S

	1974	1973
TRANSPORTATION PROPERTY, at cost (Notes 1 and 6):		
Transportation property in service	$320,252,480	$313,830,022
Less- Reserve for depreciation	125,629,045	117,716,911
	$194,623,435	$196,113,111
Construction in progress	208,679,961	162,605,038
Property held for expansion (Note 11)	19,500,000	19,500,000
	$422,803,396	$378,218,149
SPECIAL FUNDS, consisting of Cash, Certificates of Deposit and U. S. Government Securities, at cost:		
Construction funds, held by the bond fiscal agent	$ 81,595,550	$ 26,479,366
Funds received for relocation of facilities (Note 3)	326,235	378,734
Federal grants and other special funds (Note 1)	436,946	410,414
	$ 82,358,731	$ 27,268,514
CURRENT ASSETS:		
Cash	$ 2,530,908	$ 17,753,169
Certificates of Deposit	115,759,802	78,354,841
Accounts receivable-		
Commonwealth of Massachusetts	16,295,580	14,213,511
Boston Redevelopment Authority (Note 8)	2,858,369	6,618,008
Other	5,881,629	2,693,005
Materials and supplies, at average cost	5,557,884	4,604,465
Prepaid expenses	489,384	187,004
	$149,373,556	$124,424,003
DEFERRED CHARGES:		
Unamortized expansion and modernization costs (Notes 1 and 9)	$ 8,194,524	$ 8,589,501
Other	775,964	794,628
	$ 8,970,488	$ 9,384,129
	$663,506,171	$539,294,795

L I A B I L I T I E S

	1974	1973
LONG-TERM DEBT, exclusive of current maturities (Note 5):		
Bonds payable	$357,992,076	$294,831,336
Loan payable to Department of Transportation, including interest of $2,603,047 in 1974 and $1,262,422 in 1973 (Note 11)	22,103,047	20,762,422
	$380,095,123	$315,593,758
UNREIMBURSED COST OF SERVICE (Note 1)	$ (7,453,044)	$ (7,958,438)
CURRENT LIABILITIES:		
Current maturities of bonds payable (Note 5)	$ 11,839,259	$ 9,732,259
Notes payable ($125,000,000 due December 31, 1975 and $100,000,000 due December 31, 1974) (Note 5)	125,000,000	100,000,000
Accounts payable	10,502,135	10,629,811
Accrued liabilities-		
Payroll	1,269,635	2,065,804
Interest	5,139,150	3,609,041
Other	1,028,480	1,012,816
	$154,778,659	$127,049,731
COMMITMENTS AND CONTINGENCIES (Notes 1, 4 and 6)		
DEFERRED CREDITS (Note 3)	$ 6,971,742	$ 7,116,746
GRANTS (Notes 1 and 8):		
Federal grants	$125,345,209	$ 92,772,252
Less- Amortization	7,829,949	5,942,571
	$117,515,260	$ 86,829,681
Boston Redevelopment Authority	11,598,431	10,663,317
	$129,113,691	$ 97,492,998
	$663,506,171	$539,294,795

The accompanying notes are an integral part of these financial statements.

MASSACHUSETTS BAY TRANSPORTATION AUTHORITY

STATEMENT OF REVENUE AND COST OF SERVICE

FOR THE YEARS ENDED DECEMBER 31, 1974 AND 1973

	1974	1973
OPERATING REVENUE:		
Transportation	$ 51,539,522	$ 52,209,205
Other	1,340,142	1,452,050
	$ 52,879,664	$ 53,661,255
OPERATING EXPENSES (Note 10):		
Transportation service	$ 68,269,718	$ 59,851,361
Maintenance	37,279,720	34,553,139
Electric power	12,453,254	7,253,469
Depreciation and amortization (Notes 1 and 8)	9,496,016	9,491,778
General and administrative expenses-		
Salaries and wages	7,975,078	7,130,845
Employee pension and insurance benefits (Notes 1 and 4)	20,520,530	19,011,487
Injuries and damages and workmen's compensation claims (Note 1)	3,209,410	2,376,458
Other	2,621,297	2,544,865
	$ 161,825,023	$ 142,213,402
Operating loss	$(108,945,359)	$ (88,552,147)
OTHER INCOME, including interest of $10,233,992 in 1974 and $5,966,510 in 1973	10,667,444	6,170,996
INTEREST EXPENSE, including $15,606,555 on long-term debt in 1974 and $13,479,287 in 1973	(21,240,590)	(17,289,545)
RAILROAD COMMUTER SUBSIDIES, including amortization of the original Railroad Contract Assistance Program of $325,000 in both 1974 and 1973 (Notes 1, 2 and 9)	(12,053,483)	(4,644,562)
Cost of service in excess of revenue	$(131,571,988)	$(104,315,258)

The accompanying notes are an integral part of these financial statements.

MASSACHUSETTS BAY TRANSPORTATION AUTHORITY

STATEMENT OF UNREIMBURSED COST OF SERVICE

FOR THE YEARS ENDED DECEMBER 31, 1974 AND 1973

	1974	1973
BALANCE AT BEGINNING OF YEAR	$ 7,958,438	$ 8,658,790
ADD- Cost of service in excess of revenue	131,571,988	104,315,258
DEDUCT:		
Cost of service reimbursed by the Commonwealth of Massachusetts to be assessed to the cities and towns constituting the Authority	64,219,880	52,341,827
Contract Assistance, portion of the cost of service paid by the Commonwealth of Massachusetts in accordance with a contract for financial assistance between the Authority and the Commonwealth (Note 7)-		
Assistance pursuant to Chapter 825 of the Acts of 1974 in 1974 and pursuant to Chapter 1140 of the Acts of 1973 in 1973	45,000,000	35,000,000
Assistance pursuant to Chapter 563 of the Acts of 1964 and Chapter 147 of the Acts of 1968, as amended	17,120,043	15,051,861
Assistance, other	2,674,145	-
Cost of service reimbursed by the cities and towns outside the Authority's area	822,191	409,193
State diesel and gasoline fuel taxes reimbursable to the Authority in accordance with Section 2 of Chapter 563 of the Acts of 1964	366,810	359,039
Amortization of Federal grants (Notes 1 and 8)	1,874,313	1,853,690
BALANCE AT END OF YEAR	$ 7,453,044	$ 7,958,438

The accompanying notes are an integral part of these financial statements.

MASSACHUSETTS BAY TRANSPORTATION AUTHORITY

STATEMENT OF CHANGES IN FINANCIAL POSITION

FOR THE YEARS ENDED DECEMBER 31, 1974 AND 1973

	1974	1973
DS WERE USED FOR:		
ost of service in excess of revenue	$131,571,988	$104,315,258
Less- Charges to cost of service in excess of revenue which did not require funds-		
Depreciation of transportation property (Note 1)	(9,360,017)	(9,347,497)
Amortization of deferred charges (Notes 1 and 9)	(460,999)	(469,281)
Interest accrued on loan from Federal Department of Transportation (Note 11)	(1,340,625)	(1,262,422)
	$120,410,347	$ 93,236,058
urchase of property held for expansion	-	19,500,000
dditions to transportation property, net	53,945,265	60,211,943
ncrease in deferred charges	47,358	190,641
ecrease in bonds payable (Notes 5 and 6)	11,839,260	9,731,925
ncrease (decrease) in Special Funds	55,090,217	(34,422,311)
Total funds used	$241,332,447	$148,448,256
DS WERE PROVIDED BY:		
et cost of service reimbursable by the Commonwealth of Massachusetts for the 1973 deficit to be assessed to the cities and towns constituting the Authority (Note 1)	$ 64,219,880	$ 52,341,827
ontract assistance received from the Commonwealth of Massachusetts (Note 7)	64,794,188	50,051,861
eimbursement by the Commonwealth of Massachusetts of state diesel and gasoline fuel taxes	366,810	359,039
eimbursement by cities and towns outside the Authority's area for service provided	822,191	409,193
roceeds from issue of Series A Bonds dated June 1, 1974	75,000,000	-
oan from Federal Department of Transportation	-	19,500,000
rants from Federal and other sources (Notes 1 and 8)	33,495,006	24,241,701
ncrease (decrease) in deferred credits	(145,004)	105,226
Total funds provided	$238,553,071	$147,008,847
ULTING IN A WORKING CAPITAL DECREASE OF:	$ 2,779,376	$ 1,439,409
NGES IN ELEMENTS OF WORKING CAPITAL CONSIST OF:		
ncrease (decrease) in current assets-		
Cash	$(15,222,261)	$ 8,728,588
Certificates of deposit	37,404,961	9,449,824
Accounts receivable	1,511,054	2,650,968
Materials and supplies	953,419	185,260
Prepaid expenses	302,380	(163,957)
	$ 24,949,553	$ 20,850,683
ncrease (decrease) in current liabilities-		
Current maturities of bonds payable	$ 2,107,000	$ (117,334)
Notes payable	25,000,000	20,000,000
Accounts payable	(127,678)	2,583,914
Accrued liabilities	749,607	(176,488)
	$ 27,728,929	$ 22,290,092
ecrease in working capital	$ 2,779,376	$ 1,439,409

The accompanying notes are an integral part of these financial statements.

MASSACHUSETTS BAY TRANSPORTATION AUTHORITY

STATEMENT OF BONDS PAYABLE

DECEMBER 31, 1974 AND 1973

Massachusetts Bay Transportation Authority General Transportation System Bonds issued under General Laws, Chapter 161A, Section 23 of the Commonwealth of Massachusetts, 1967 Series A, dated March 1, 1967, 1970 Series A, dated September 1, 1970, 1972 Series A, dated September 1 1972, and 1974 Series A, dated June 1, 1974 are all payable in annual installments on March 1 interest is payable semiannually on March 1 and September 1.

1967 Series A Bonds - The proceeds of the sale of the 1967 Series A Bonds were required to be used for payment of $40,000,000 of Bond Anticipation Notes outstanding and the balance of $70,000,000 was required to be deposited in the Bond Proceeds accounts. These bonds were issued to provide funds for the purposes outlined below. The debt outstanding at December 31 1974 and 1973 is as follows:

Purpose	First Principal Payment	Year of Maturity	Approximate Annual Payment	Average Interest Rate	1974	1973
Express service transportation facilities	1969	2007	$1,900,000	3.78%	$ 62,700,000	$ 64,600,000
Agreement with railroads	1968	1982	325,000	3.75	2,725,000	3,050,000
Buses and other purposes	1968	1979	325,000	3.75	1,625,000	1,950,000
Local service transportation facilities	1969	2007	50,000	3.78	1,650,000	1,700,000
Capital cost of certain transportation facilities including yards, shops and rolling stock	1969	2007	625,000	3.78	21,450,000	22,075,000
					$ 90,150,000	$ 93,375,000

1970 Series A Bonds - The proceeds of the sale of the 1970 Series A Bonds were required to be used for payment of $5,365,000 of Bond Anticipation Notes outstanding and the balance of $61,500,000 was required to be deposited in the Bond Proceeds accounts. These bonds were issued to provide funds for the purposes outlined below. The debt outstanding at December 31 1974 and 1973 is as follows:

Purpose	First Principal Payment	Year of Maturity	Approximate Annual Payment	Average Interest Rate	1974	1973
Express service transportation facilities	1971	2010	$1,540,000	6.31%	$ 55,340,000	$ 56,880,000
Buses and other purposes	1971	1982	295,000	6.06	2,320,000	2,615,000
Purchase and improvement of the Cambridge subway	1971	1980	185,000	6.08	1,110,000	1,295,000
					$ 58,770,000	$ 60,790,000

MASSACHUSETTS BAY TRANSPORTATION AUTHORITY

STATEMENT OF BONDS PAYABLE

DECEMBER 31, 1974 AND 1973

(Continued)

72 Series A Bonds - The proceeds of the sale of the 1972 Series A Bonds were used for payment of $8,000,000 Bond Anticipation Notes and the balance of $32,000,000 was deposited in the Bond Proceeds accounts. These bonds were issued to provide funds for the purposes outlined below. The debt outstanding at December 31, 1974 and 1973 is as follows:

Purpose	First Principal Payment	Year of Maturity	Approximate Annual Payment	Average Interest Rate	1974	1973
press service transportation facilities and other capital costs of the transportation system	1973	2012	$865,000	5.26%	$ 32,770,000	$ 33,635,000
s acquisition	1973	1984	290,000	5.40	2,920,000	3,210,000
s garages	1973	1984	170,000	5.40	1,660,000	1,830,000
					$ 37,350,000	$ 38,675,000

74 Series A Bonds - The proceeds of the sale of 1974 Series A Bonds were deposited in the ond Proceeds Account. These bonds were issued to provide funds for the purposes outlined elow. The debt outstanding at December 31, 1974 is as follows:

Purpose	First Principal Payment	Year of Maturity	Approximate Annual Payment	Average Interest Rate	1974	1973
ress service ransportation facilities nd other capital costs of he transportation system	1975	2014	$1,785,000	6.82%	$ 71,400,000	$ -
and trackless trolley cquisition	1975	1986	300,000	7.00	3,600,000	-
					$ 75,000,000	$ -

MASSACHUSETTS BAY TRANSPORTATION AUTHORITY

STATEMENT OF BONDS PAYABLE

DECEMBER 31, 1974 AND 1973

(Continued)

	1974	1973
olitan Transit Authority Bond, payable in semiannual allments of $500,000 to December, 2020 -- Interest payable he interest payable by the Boston Metropolitan District heir contra debt and refunding issues, which for the year d December 31, 1974 and 1973 was 3.98%.	$ 45,918,372	$ 46,918,372
Transit Bond, payable in annual installments of $536,259 ovember, 2024 -- Interest is the actual interest on the of Boston Transit Debt and refunding issues less income lected on the City's transit debt sinking fund, which for year ended December 31, 1974 and 1973 was 3.96%.	$ 26,812,963	$ 27,349,223

ent Serial Bonds:

of rity	Approximate Annual Payment	Interest Rate		
74	$ -	3.00%	$ -	$ 5,000
75	110,000	3.00	110,000	232,000
77	219,000	3.00	657,000	876,000
78	176,000	3.00	702,000	878,000
31	127,000	1.50	889,000	1,016,000
87	128,000	2.90	1,657,000	1,785,000
88	131,000	2.90	1,834,000	1,965,000
93	169,000	3.00	3,211,000	3,380,000
93	100,000	3.20	1,900,000	2,000,000
	$1,160,000		$ 10,960,000	$ 12,137,000

MASSACHUSETTS BAY TRANSPORTATION AUTHORITY

STATEMENT OF BONDS PAYABLE

DECEMBER 31, 1974 AND 1973

(Continued)

	1974	1973
uction Bonds:		
%, payable $102,000 per annum to November 21, 1979, and ,590,000 on November 25, 1979	$ 5,100,000	$ 5,202,000
%, payable $84,333 per annum to March 1, 1981, and ,781,667 on March 1, 1981	4,372,000	4,456,333
%, payable $22,000 per annum to January 15, 1982, and 90,000 on January 15, 1982	1,166,000	1,188,000
%, payable $47,000 per annum to March 1, 1983, and ,115,000 on March 1, 1983	2,538,000	2,585,000
%, payable $10,000 per annum to March 1, 1984, and 50,000 on March 1, 1984	550,000	560,000
%, payable $55,000 per annum to July 1, 1988, and ,475,000 on July 1, 1988	3,245,000	3,300,000
%, payable $69,667 per annum to February 1, 1989, and ,135,000 on February 1, 1989	4,180,000	4,249,667
%, payable $19,000 per annum to September 15, 1990, and 55,000 on September 15, 1990	1,159,000	1,178,000
%, payable $40,000 per annum to April 15, 1993, and ,800,000 on April 15, 1993	2,560,000	2,600,000
	$ 24,870,000	$ 25,319,000
	$369,831,335	$304,563,595
- Current maturities of bonds payable	11,839,259	9,732,259
Bonds payable	$357,992,076	$294,831,336

The accompanying notes are an integral part of these financial statements.

MASSACHUSETTS BAY TRANSPORTATION AUTHORITY

NOTES TO FINANCIAL STATEMENTS

DECEMBER 31, 1974 AND 1973

(1) Summary of Significant Accounting Policies

(a) Transportation Property

Transportation property is stated at historical cost. Such costs include MBTA labor costs for employees working on capital projects plus related fringe benefits and an allocated share of general and administrative costs. The cost of funds required to finance the expansion of the transportation system is expensed currently.

(b) Depreciation

Depreciation is provided in the accounts based on the straight-line method at rates which are designed to amortize the original cost of the property over its estimated useful life. The major categories of transportation property and the depreciation rates used on the depreciable portion of the property for the years ended December 31, 1974 and 1973 are:

	Rates			Cost	
	Low	High	Average	1974	1973
Ways and structures	1.23%	10.00%	2.24%	$216,469,884	$208,815,470
Equipment	2.00%	33.33%	4.76%	103,782,596	105,014,552
				$320,252,480	$313,830,022

(c) Deferred Charges

Certain costs incurred by the Authority, primarily related to the expansion and modernization of the transportation system as further described in Note 9, have been capitalized. These costs are then amortized by charges to cost of service over the future periods in which the benefit to the Authority is estimated to be realized.

(d) Injuries and Damages

The Authority is a self-insurer on claims for injuries and damages to the extent of $100,000 per accident. Insurance coverage is carried on claims in excess of that amount up to a maximum limit of $15,100,000 per accident. The Authority accounts for injuries and damages by charges to operating expenses as payments are made.

MASSACHUSETTS BAY TRANSPORTATION AUTHORITY

NOTES TO FINANCIAL STATEMENTS

DECEMBER 31, 1974 AND 1973
(Continued)

(1) Summary of Significant Accounting Policies (Continued)

(e) Workmen's Compensation Insurance

Effective May 1, 1965, the Authority became a self-insurer on workmen's compensation claims under the workmen's compensation laws of the Commonwealth of Massachusetts to the extent of $50,000 per occurrence. Insurance coverage is carried on each occurrence in excess of that amount up to a maximum limit of $4,050,000 per occurrence. The Authority accounts for these claims by charges to operating expenses as payments are made.

(f) Unreimbursed Cost of Service

The legislative act under which the Massachusetts Bay Transportation Authority was established provides, among other things, that the Commonwealth of Massachusetts shall reimburse the Authority for the "net cost of service" as defined. The amounts reimbursed are then assessed to the 79 cities and towns constituting the Authority. The "net cost of service", as defined, includes a charge equal to the payments made on long-term debt during the period, and does not include a charge for depreciation. For financial reporting purposes however, the Authority follows the generally accepted method of depreciating the cost of property over its estimated useful life.

The cumulative excess of depreciation charges over payments made on long-term debt is charged to the unreimbursed cost of service account and is recovered in years when payments made on long-term debt exceed depreciation. During the year ended December 31, 1974, depreciation charges exceeded payments on long-term debt by $88,757. In 1973, payments exceeded depreciation charges by $32,481. The excess of payments over depreciation charges is primarily due to the fact that payments are being made on certain long-term debt, the proceeds of which have been expended on construction which is still in progress and is not yet being depreciated.

In addition, the "net cost of service" as defined does not include charges for interest accrued on the Loan Payable to the Federal Department of Transportation ($1,340,625 in 1974 and $1,262,422 in 1973) (Note 11). However, for financial reporting purposes, these amounts have been charged to cost of service, in accordance with generally accepted accounting principles. Interest accrued will be included in "net cost of service" assessable to the cities and towns in the year it is paid.

(1) Summary of Significant Accounting Policies (Continued)

(g) Grants

The Authority receives grants from certain governmental agencies (see Note 8) to be used for various purposes connected with the planning, modernization and expansion of transportation facilities. These grants are deferred until such time as the related facilities are put into service. The credits are then amortized over the estimated useful life of the assets as a reduction of Unreimbursed Cost of Service.

(2) Railroad Commuter Subsidies

Under Chapter 24 of the Acts of 1967 and Chapter 728 of the Acts of 1968, as amended, the Authority and the Commonwealth of Massachusetts entered into agreements whereby the Commonwealth would subsidize, up to certain specified limits, 100% of the cost of financing agreements with the railroads to provide service to and from Boston from August 1, 1972 through July 31, 1973. The cost to the Authority of providing the railroad service after July 31, 1973, was not subsidized by the Commonwealth except through contract assistance for net cost of service (Note 7). In accordance with these agreements, financial assistance paid or payable to the Boston & Maine and Penn Central Railroads and expenses related thereto amounted to $11,728,483 in 1974 and $8,833,508 in 1973. In 1973, the subsidy paid by the Commonwealth to the Authority amounted to $4,513,946.

(3) Relocation of Facilities

In April, 1967, the Authority entered into an agreement with the John Fitzgerald Kennedy Library Incorporated, whereby the Authority would relocate certain transportation facilities in order to convey certain properties to the United States and the Library Corporation.

The Commonwealth of Massachusetts appropriated $6,098,400 to the Authority for the part of the properties conveyed to the United States. In addition, the Authority received $1,330,112 from the Library Corporation for the remaining part of the properties, totaling $7,428,512.

(3) Relocation of Facilities (Continued)

These facilities, having a net book value of $709,807, have been retired. The amount received in excess of net book value ($6,718,705), less $12,000 of expenses incurred in connection with the acquisition of replacement property, is included in Deferred Credits on the balance sheet. When the construction of replacement facilities is completed in 1975, this credit will be amortized over their estimated useful lives as an offset to the applicable depreciation expense.

(4) Pension

The Authority has agreed to provide retirement benefits to employees through a contributory pension plan which, as currently amended, requires the payment by the Authority of an amount equal to 11-5/8% of the total payroll of the employees who are members of the plan. The total pension cost to the Authority for the years ended December 31, 1974 and 1973 was approximately $12,432,000 and $11,047,000, respectively. The cost in both years is funded currently and includes interest on unfunded past service costs, but does not include amortization of the unfunded past service costs. The Authority is not legally obligated, under the agreement, to fund the actuarial cost of future benefits to present and retired employees based on past service costs. The most recent actuarial valuation was made as of December 31, 1973, and at that time, unfunded past service costs approximated $113,000,000.

The actuarially computed value of vested benefits, based upon the most recent actuarial report (dated December 31, 1973) was $158,182,000. As of December 31, 1973, the market value of the fund assets was $103,601,000, and the computed value of vested benefits exceeded the market value of fund assets by $54,581,000. The market value of fund assets as of December 31, 1974 was $84,469,000.

(5) Long-Term Debt

The legislative act under which the Massachusetts Bay Transportation Authority was established provides, among other things, that if at any time any principal or interest is due on any bond or note issued or assumed by the Authority and funds to pay the same are not available, the Commonwealth of Massachusetts shall thereupon pay over to the Authority the amount required to meet such obligations.

(6) Construction Program

The Authority's program for mass transportation within the area constituting the Authority involves a total estimated cost of $1.7 billion during the period 1974-1983. Financing requirements for the program are expected to be met through various sources, including the issuance by the Authority of $389,000,000 of long-term debt securities. The remaining financing requirements are expected to be met through Federal transit aid, Federal urban renewal funds, interstate transfer funds and relocation cost reimbursements.

Expenditures on the program through December 31, 1974, have been financed through the issuance of $290,000,000 of Massachusetts Bay Transportation Authority General Transportation System Bonds, and other sources as mentioned above.

As of December 31, 1974, the Authority has entered into purchase commitments amounting to approximately $97,000,000.

(7) Contract Assistance

The legislative act authorizing the issuance of debt securities currently provides for participation by the Commonwealth of Massachusetts in the payment of annual debt service costs on bonds issued by the Authority as follows: on the $175,000,000 of bonds issued prior to January 1, 1971, the debt service on $144,800,000 is eligible for contract assistance at either 90% or 50%, as provided by contract; the annual debt service on $115,000,000 of bonds issued after January 1, 1971, is eligible for contract assistance at 90%. However, regardless of when issued, contract assistance on debt service will not be extended to over $257,000,000 at any one time.

(7) Contract Assistance (Continued)

In both 1974 and 1973, the Commonwealth enacted legislation which provided the Authority with an additional amount of contract assistance for the cost of service. This amounted to $45,000,000 in 1974 and $35,000,000 in 1973. This additional contract assistance is not assessable to the 79 cities and towns constituting the Authority and is applied for assessment purposes as a reduction of all cost items comprising the net cost of service of the Authority.

In 1973, contract assistance of $15,051,861 was received by the Authority for funded debt, and in addition $4,513,946 was paid by the Commonwealth for the Authority as a railroad commuter subsidy (Note 2). These amounts, totaling $19,565,807, under Chapter 1140 of the Acts of 1973, represent the minimum contract assistance to be paid by the Commonwealth in any subsequent calendar year. During 1974, the Authority became eligible for $17,120,043 of assistance on funded debt and $2,445,764 as other assistance to bring total contract assistance up to the minimum level. In addition, in 1974, the Authority became eligible under Chapter 825 of the 1974 Acts for contract assistance, not to exceed 50% of the net additional expense of providing rail service to various cities and towns during 1974. This other assistance amounted to $228,381.

(8) Grants

Under the Urban Mass Transportation Act of 1964, the Department of Transportation has approved for the Authority grants aggregating $328,522,314. The Authority has received $126,095,596 of this amount. These funds have been used by the Authority to purchase new buses and to modernize and expand mass transportation facilities.

Under an agreement between the Boston Redevelopment Authority and the Massachusetts Bay Transportation Authority, the BRA has approved grants aggregating $12,000,000 in connection with the expansion of mass transportation facilities. The Massachusetts Bay Transportation Authority has incurred costs totaling $11,598,431 related to this agreement. Of this amount they have not yet been reimbursed by the BRA for $1,823,277 which is included in accounts receivable. Although substantially all of this amount and other amounts receivable from the BRA are past due, in the opinion of management, the receivable is collectible.

Federal grant amortization has been credited to the unreimbursed cost of service amounting to $1,874,313 in 1974 and $1,853,690 in 1973.

(9) Unamortized Expansion and Modernization Costs (Note 1)

Under the original Railroad Contract Assistance Program, the Authority incurred costs which totaled $5,000,000, which are being amortized to cost of service over fifteen years. The amortization amounted to $325,000 in both 1974 and 1973. The unamortized balance at December 31, 1974 was $2,725,000. In addition, in connection with the Authority's acquisition of the Eastern Mass. Street Railway Company in 1968, costs of $611,362 were not assigned to tangible assets. These costs are being amortized by charges to cost of service over forty years. Amortization in 1974 and 1973 amounted to $15,284 and the unamortized balance at December 31, 1974 was $519,658.

The other deferred expenses relating to the expansion and modernization of the Transportation System are being amortized by charges to cost of service over forty years commencing in 1972. Amortization amounted to $133,780 in 1974 and $131,592 in 1973. The unamortized balance at December 31, 1974 was $4,949,866.

(10) Supplementary Operating Expense Information

Operating expenses captioned below consist of the following:

	1974	1973
Transportation services-		
Salaries and wages	$59,391,421	$53,159,220
Taxes, including payroll taxes	3,806,634	3,219,697
Fuel	2,313,241	1,436,234
Other	2,758,422	2,036,210
	$68,269,718	$59,851,361
Maintenance-		
Salaries and wages	$27,004,169	$24,873,070
Materials and supplies	8,839,702	8,519,720
Taxes, including payroll taxes	1,435,849	1,160,349
	$37,279,720	$34,553,139

(10) Supplementary Operating Expense Information (Continued)

	1974	1973
Electric power-		
Salaries and wages	$ 3,165,203	$ 2,760,648
Power purchased	1,840,598	1,026,390
Fuel	6,956,737	3,122,558
Taxes, including payroll taxes	153,841	124,323
Other	336,875	219,550
	$12,453,254	$ 7,253,469

(11) Property Held for Expansion

On January 26, 1973, the Authority purchased 145 miles of the Penn Central Railroad's right of way and related properties in Eastern Massachusetts. This purchase was financed with a $19.5 million loan from the Federal Department of Transportation. The property acquired is pledged as security for the loan.

The loan agreement provides for the Authority to repay 25% of the principal plus accrued interest at the earlier of (a) January 26, 1983, (b) the date a grant agreement for actual construction of mass transportation facilities is made, or (c) the date a decision is made not to use the property for mass transportation. The balance of the principal amount is payable out of the proceeds from the sale of property, if any.

Interest totaling $2,603,047 ($1,340,625 charged to cost of service in 1974 and $1,262,422 in 1973) has been accrued in the accompanying financial statements at December 31, 1974. However, this interest is not included in "net cost of service" assessable to the 79 cities and towns until the year it is paid.